

Lampiran

TABEL DISTRIBUSI

No	NAMA DISTRIBUSI	FUNGSI DENSITAS	RATAAN E(X)	VARIAN Var(X)
1	Normal	$f(x) = \frac{1}{\sqrt{2\pi\sigma}} \exp \frac{1}{2} \left(\frac{x-\mu}{\sigma} \right)^2$ $-\infty < x < \infty$	μ	σ^2
2	Bernoulli	$f(x) = p^x(1-p)^{1-x}$ $x = 0,1$	p	$p(1-p)$
3	Binomial	$f(x) = \binom{n}{p} p^x(1-p)^{n-x}$ $x = 0,1,2,\dots,n$	np	$np(1-p)$
4	Geometri	$f(x) = p(1-p)^x$ $x = 0,1,2$	$\frac{1}{p}$	$\frac{1-p}{p^2}$
5	Poisson	$f(x) = \frac{e^{-\lambda} \lambda^x}{x!}$	λ	λ^2
6	Gamma	$f(x) = \frac{(\mu\lambda)^m}{(m-1)!} t^{m-1} e^{-\mu t}, t \geq 0$ $x > 0, \mu > 0, \lambda > 0$	$\frac{1}{\mu}$	$\frac{1}{m\mu^2}$
7	Eksponensial	$f(x) = \lambda e^{-\lambda x}$ $\lambda \geq 0$	$\frac{1}{\lambda}$	$\frac{1}{\lambda^2}$
8	Pascal	$f(x) = \binom{x-1}{r-1} p^r q^{x-r}$	$\frac{rq}{p}$	$\frac{rq}{p^2}$
9	Uniform	$f(x) = \begin{cases} \frac{1}{b-a}, & a < x < b \\ 0, & x \text{ lainnya} \end{cases}$	$\frac{a+b}{2}$	$\frac{(b-a)^2}{12}$

10	Hiper geometrik	$f(x) = \frac{\binom{m}{x} \binom{N-M}{n-x}}{\binom{N}{n}}$	$\frac{nM}{N}$	$\frac{(N-M)(N-n)}{N(N-1)} \cdot \frac{nM}{N}$
11	Binomial Negatif	$f(x) = \binom{x-1}{r-1} p^r (1-p)^{x-r}$ $x = r, r+1, r+2, \dots$	$\frac{r(1-p)}{p}$	$\frac{r(1-p)}{p^2}$
12	Beta Binomial	$f(x) = \frac{\binom{n}{x} \Gamma(\alpha + \beta)}{\Gamma(\alpha) \Gamma(\beta)}$	$\frac{n\alpha}{\alpha + \beta}$	$\frac{n\alpha\beta(n + \alpha + \beta)}{(\alpha + \beta)^2(\alpha + \beta + 1)}$
13	Logaritmis	$f(x) = \frac{(1-p)^x}{-x \ln p}$ $x = 1, 2, \dots$	$\frac{1-p}{-p \ln p}$	$\frac{(1-p)((1-p) + \ln p)}{-p(p \ln p)^2}$
14	Beta	$f(x) = \begin{cases} \frac{1}{B(a,b)} x^{a-1} (1-x)^{b-1} & x = 0, 1, \dots \\ 0 & \text{untuk lainnya} \end{cases}$	$\frac{a}{a+b}$	$\frac{ab}{(a+b+1)(a+b)^2}$
15	Distribusi t	$f(x) = \frac{\Gamma\left(\frac{r+1}{2}\right)}{\sqrt{\pi r} \Gamma(r/2)} \frac{1}{(1+t^2/2)^{r+1/2}}$ $-\infty < t < \infty$ $f(x) = 0$, untuk lainnya	$\mu = 0$ untuk $t > 0$	$\frac{t}{t-2}$, untuk $t > 2$
16	Double Eksponensial	$f_x(x) = \frac{1}{2\beta} \exp\left(\frac{- x-\alpha }{\beta}\right)$	α	$2\beta^2$

17	Weinbull	$f_x(x) = \begin{cases} abx^{b-1} \exp, \\ 0 < x < \infty \\ 0 \text{ untuk lainnya} \end{cases}$	$a^{-1/b} \Gamma(1+b^{-1})$	$a^{\frac{-2}{b}} \left[\Gamma(1+2b^{-1}) \cdot \left(\Gamma(1+b^{-1})^2 \right) \right]$
18	Poreto	$f_x(x) = \begin{cases} \frac{\theta x_0^\theta}{x^{\theta+1}}, & x_0 < x < \infty \\ 0, & \text{untuk lainnya} \end{cases}$	$\frac{\theta x_0}{\theta - 1}$	$\frac{\theta x_0^2}{(\theta - 1)^2 (\theta - 2)}$
19	Gumbel	$f(x) = \exp(-e^{-(x-a)/\beta})$	$\alpha + \beta\gamma$	$\frac{\pi^2 \beta^2}{6}$
20	Chi – square	$f(x) = \begin{cases} \frac{1}{\Gamma\left(\frac{r}{2}\right) 2^{r/2}} x^{(r/2-1)} e^{-x/2} \\ 0 < x < \infty \\ 0, & \text{untuk lainnya} \end{cases}$	r	$2r$